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**Testing the Situationism Scale in Europe:
Scale Validation, Self-Regulation, and Regional Differences**

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Abstract

The term *situationism* refers to an individual's belief about the importance of a behavior's context. This study tested whether the degree of situationism expressed by individuals in various regions of Europe was consistent with self-regulation and cross-cultural theories. The English version of a Situationism Scale (measuring beliefs about the relation between the environment and one's own behavior) was translated into five additional languages: Dutch, German, Hungarian, Italian, and Slovenian. Young adults ($N=1,106$, $M_{\text{Age}}=22.9$ years, 79% female) across Europe responded to one of the six language versions of the scale as part of a larger survey. Results indicated that: new language versions were psychometrically valid; there was positive relation between situationism and the use of situation-control strategies; and situationism was higher for individuals from regions that are Eastern European and relatively more interdependent, compared to individuals from regions that are Western European and relatively less interdependent. As the first evaluation of the Situationism Scale outside America, this study supports the scale's validity and suggests not only may some effects of situationism be universal, but between- and within-culture differences in situationism exist. Overall, when making judgments and decisions about the self, cultural background and individual differences in situationism may come into play.

Keywords: cross-cultural, interdependence, self-regulation, health behavior

Introduction

Emerging from the attribution literature, the term *lay situationism* refers to beliefs about the importance of a behavior's context (Choi, Nisbett, & Norenzayan, 1999; Norenzayan, Choi, & Nisbett, 2002). In other words, it reflects a conceptualization about the power of the situation. Lay situationism can be contrasted with lay dispositionism (Ross & Nisbett, 1991), the belief that behavior results from the internal attributes of an individual. Both terms were developed to describe cross-cultural differences in how people explain (attribute) the behaviors of others in terms of internal and external factors. In particular, research suggested that compared to Westerners, East Asians are higher on situationism, and, consequently, take situational factors more strongly into consideration when making judgments about others (Choi et al., 1999).

The work of these seminal cross-cultural researchers introduced the notion of individual differences in situationism—at least in terms of broad, East-West differences. Until recently, there has been no scale for directly measuring situationism, although results provided evidence that was consistent with theorizing (e.g., Norenzayan et al., 2002 and Grossman & Varnum, 2011, found that people from more interdependent, compared to independent, societies were more likely to apply salient situational information when predicting and making attributions about the behaviors of target individuals). Research also found national differences for related constructs, including dispositionism (Kitayama et al., 2009) and contextualism (beliefs about the importance of contextual factors, like, social class for understanding other people; Owe et al., 2013). These cross-cultural findings prompt two ensuing questions about situationism. First, do differences in situationism not only exist between cultures, but among individuals? Second, although prior research has focused on judgments and decisions regarding others, could

situationism also influence judgments, decisions, and behaviors regarding the *self*? The present work continues an investigation into these questions with the Situationism Scale.

The Situationism Scale and Self-Regulation

The Situationism Scale (Roberts et al., 2014) was developed to assess individual differences in beliefs about the strength of the relation between the environment and one's own behavior. Scale validation with US samples supported the psychometric soundness of this Situationism Scale and the distribution of scores supported the notion that situationism can vary within cultures. Factor analysis also indicated the existence of two subscales, named *Attention to the Situation* (e.g., "I pay attention to relationships between my environment and my behavior" "I tend to be conscious of my surroundings") and *Susceptibility to the Environment* (e.g., "The places around me influence my behavior" "Some circumstances make it difficult for me to resist conforming"). These subscales appear to be modestly correlated (e.g., in Study, 1, $r = .12$, $p = .07$).

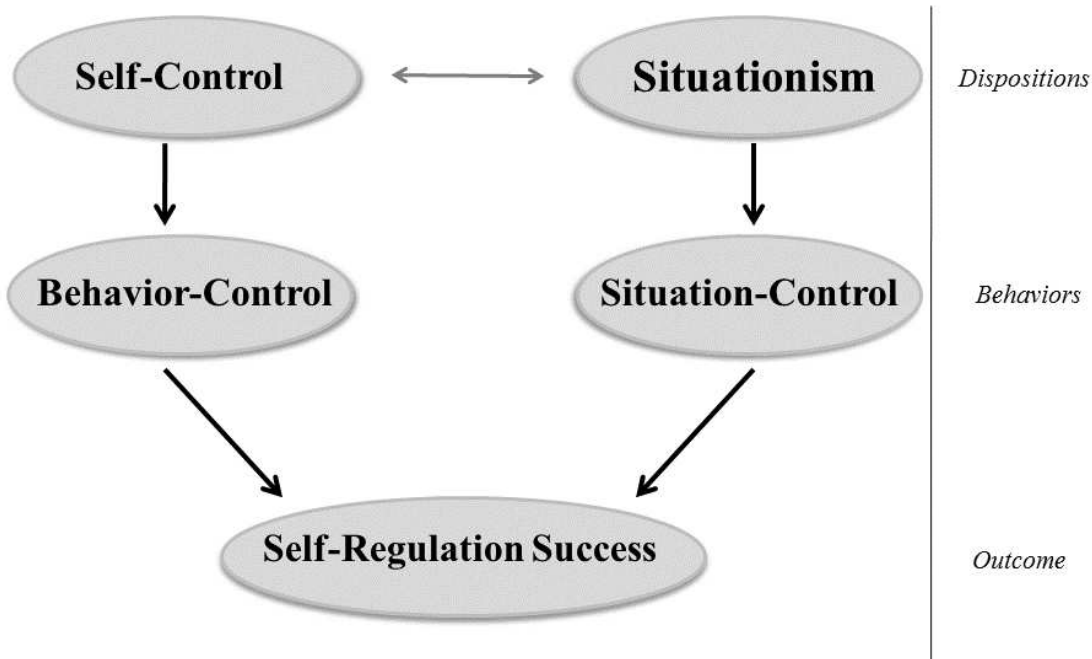
To evaluate the Situationism Scale's validity and predictive utility, Roberts et al. (2014) tested whether situationism was associated with certain types of self-regulatory behavior. Self-regulation concerns the exertion of control over oneself, for the purpose of inhibiting the way one would otherwise think, feel, or behave (Baumeister & Heatherton, 1996). In order for self-regulation to occur, two criteria must be met: (1) the person must feel tempted to act in a certain way, and (2) the person must wish to avoid acting in that way. Whether self-regulation occurs thus varies based on the person, the behavior, and the situation. Examining only current "self-regulators" provides greater precision in investigations into self-regulatory behavior. Yet to capture self-regulatory domains where many people struggle, Roberts et al. focused on the

health-risk behaviors of unhealthy eating and heavy alcohol use, and used primarily adolescent and young adult samples.

One approach to understanding the strategies (or behaviors) used for self-regulation is to see them as consisting of two types (see Figure 1). The first, behavior-control, refers to battling temptation in the heat of the moment and has been the main focus of self-regulation research (e.g., Muraven, Collins, & Nienhaus, 2002; Vohs & Heatherton, 2000). Research indicates that individuals low on the trait *self-control* perform worse at behavior-control (see Tangney, Baumeister, & Boone, 2004). Models developed to describe specific domains of regulatory problems provide similar accounts. For instance, goal conflict theory posits that stimuli signaling eating behavior (e.g., the sight or smell of food) will activate the dieter's goal of enjoying food, which can overcome the incompatible goal of controlling his/her weight.

The second type of behavior, situation-control, refers to manipulating the environment in order to avoid temptation. Roberts et al. (2014) found that individual differences in situationism and its subscales could predict greater situation-control. For instance, when individuals were asked not to snack from bowls of junk food, those self-regulators with higher scores on the *Attention to the Situation* subscale sat farther away from the food (with distancing oneself from tempting food being a type of situation-control strategy). Thus, there is preliminary evidence for the predictive utility of the Situationism Scale among US samples.

Figure 1. *Conceptual model of how situationism is expected to positively influence situation-control strategies, which, in turn, are expected to influence self-regulation outcomes.*



Situationism in European Cultures

Previous work has operated under the assumption that the Situationism Scale assesses a universal construct, which applies to different cultures and has the potential to be measured in different languages. The scale's theoretical background has also assumed that the positive relation between situationism and situation-control strategies is universally similar. However, as the Situationism Scale has not heretofore been used outside of the US, these assumptions have not yet been empirically tested.

Furthermore, provided that the same psychometric properties could be found across cultures and translated versions, it is unknown whether there are cultural differences on mean levels of situationism. The discovery of cross-cultural differences seems likely, given the evidence that sociocultural factors can influence lay beliefs (Higgins, 1996). Indeed, even within the continent of Europe, profound differences in social, religious, and political history have fostered extremely diverse ways of thinking, including differences in independence/interdependence (Varnum, Grossmann, Katunar, Nisbett, & Kitayama, 2008) and

related constructs such as locus of control (Spector et al., 2001). Thus, research indicates a tendency for Eastern Europeans to be more interdependent than Western Europeans (Kolman, Noorderhaven, Hofstede, & Dienes, 2003; Varnum et al., 2008). For instance, Kokkoris & Kühne (2013) found that participants in Eastern Europeans showed decision-making that was more reflective of interdependence compared to Western European participants. Accordingly, we hypothesized that people from cultures that are relatively more interdependent and Eastern European (e.g., Hungary) would show higher situationism than individuals from cultures that are Western European and relatively less interdependent (e.g., The Netherlands and Germany).

Study Overview

The broad objective of the present research was to examine similarities and differences in situationism (i.e., individual's beliefs in the importance of a behavior's context) across different European regions. To achieve this goal, we investigated the psychometric properties and predictive utility of six different language versions of the Situationism Scale: the original English version, and translations into Dutch, German, Hungarian, Italian, and Slovenian. The surveys were completed in five different regions of Europe, which we classified according to the United Nations (2013) geoscheme: The Netherlands and Germany were classified as Western European; Hungary as Eastern European; and Italy and Slovenia as Southern European. In addition, the English version of the survey was completed by an international pool of European young adults (to assess the scale's psychometric properties in a sample of mainly non-native English speakers). In order to facilitate comparison with findings from Roberts et al. (2014), we replicated their focus on the self-regulatory domains of unhealthy eating and heavy alcohol use, as well as their focus on adolescent and young adult samples.

Participants completed an anonymous online survey, which included measures of situationism and situation-control strategies. Our three main hypotheses were that: (1) psychometric analyses would support the validation of the translated versions of the Situationism Scale; (2) the Situationism Scale would demonstrate predictive utility, such that among self-regulators, higher situationism would be associated with greater use of situation-control strategies; and (3) situationism would be higher among those from more interdependent countries, compared to those from less interdependent countries.

Methods

Participants and recruitment

Participants were European young adults, recruited via email listserves and social networking websites to complete an anonymous, online survey. We advertised the survey as a “study on attitudes and behaviors” and asked for “young adults” to participate. Individuals in two Western European countries (The Netherlands and Germany), one Eastern European country (Hungary) and two Southern European countries (Italy and Slovenia) participated. Additionally, the English version of the survey was completed by an international pool of European young adults (over 18 nationalities were ultimately represented, with the highest percentage being 20% Polish). Ethical approval for this study was obtained by the appropriate authorities (e.g., institutional review boards, department heads) for each country or institution involved.

Overall, 1,404 individuals responded to the survey. Data was excluded from individuals if over one-third of their responses were missing ($n = 241$), an a priori cut-off; because our recruitment advertisements specifically targeted young adults, data was also excluded from participants who were older than 35 years ($n = 57$). Therefore, a total of 1,106 young adults were available for analysis. Seventy-nine percent of the sample was female, and the mean age was

22.9 ($SD = 3.1$; see Table 1).

Table 1. Sample characteristics.

Country Sample	<i>N</i>	Age				% females
		<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	
Germany	500	18	35	23.75	3.16	82.4
Hungary	154	18	35	22.24	2.86	73.4
Italy	101	18	33	22.59	2.60	72.3
The Netherlands	62	18	33	22.93	3.01	67.7
Slovenia	236	18	35	21.28	2.40	86.4
International	53	19	30	23.30	2.80	54.7
Overall	1106	18	35	22.85	3.05	78.9

Measures

The online survey used in this study was originally developed in English, but designed in order to be adaptable across languages and cultures. Following its development in English, five new language versions of the survey were created: Dutch, German, Hungarian, Italian, and Slovenian. Existing translated versions of the various scales were used when available. In most cases, a translated version did not exist and so items were translated and back-translated (see Beaton et al., 2000) by two native speakers of that language who had a good knowledge of English (discrepancies between translators were resolved through discussion). The translation-back-translation procedure was also applied to the Situationism Scale.

Situationism Scale. The Situationism Scale was the same used by Roberts et al. (2014; described above). Participants responded to the 13 items on a 1-7 Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*). Translated versions of the scale are available from the first author.

Self-control. Self-control was assessed with the Brief Self-Control Scale (Tangney et al., 2004). The scale consists of 13 items on a 1-5 Likert-type scale (1 = *not like me at all*, 5 = *very much like me*). A sample item is “People would say that I have iron self-discipline.” Tangney et

al. (2004) reported internal consistency coefficients of $\alpha = .83$ and $\alpha = .85$. Translated versions had already been found reliable and valid for Germany (Sproesser, Strohbach, Schupp, & Renner, 2011) and the Netherlands (De Wilde & Van Kenhove, 2005); therefore, those versions were utilized.

Past drinking/eating behavior. Participants were asked several questions about drinking and unhealthy eating, including how often they engaged in the behaviors (1 = *never*, 5 = *several times a week*), how much they enjoyed the behaviors (1 = *not at all*, 5 = *very much*), and how often they tried to limit the behaviors (1 = *never*, 5 = *always*). Eating questions also assessed dieting (the extent to which participants were trying to lose, maintain, or gain weight).

Drinking and eating control strategies. Participants read two sets of items: one concerning strategies to control drinking and one concerning strategies to control eating. For both sets of strategies, participants were asked to think about (or imagine) the times they try to control their alcohol consumption [eating], and report how often they relied on each of the strategies (1 = *never*, 5 = *always*). Strategy items were based on previous literature (e.g., Glassman et al., 2007; Raynor et al., 2008; Sugarman & Carey, 2007). Situation-control strategies (e.g., avoiding friends who drink heavily, storing food out of sight in your house/dorm) were intermixed with behavior-control strategies, but were aggregated into separate scales.

Locus of control. Levenson's (1981) Multidimensional Locus of Control (LOC) scale assesses perceived control due to chance, powerful others, and internal factors. It consists of 24 items on a Likert-type scale (1 = *strongly disagree*, 6 = *strongly agree*). A sample item is "Whether or not I get to be a leader depends mostly on my ability" (internal locus of control). For the English version, internal consistency estimates are described as "only moderately high" (Levenson, 1981, p. 22). Translated versions had already been found reliable and valid for

Germany (Krampen, 1981) and Slovenia (Kline, 1993); therefore, those versions were utilized. Items were aggregated for each of the three subscales.

Demographics. Having responded to the preceding scales, participants reported on their demographics, including their age, gender, and nationality. In addition to coding based on language version, we also coded participants based on regional area, according to the United Nations geoscheme: Western (The Netherlands and Germany), Eastern (Hungary), and Southern (Italy and Slovenia) European.

Results

Descriptive Statistics

A one-way analysis of variance (ANOVA) indicated that there were significant age differences between the country groups, $F(5, 1070) = 24.54, p < .001$. Post-hoc tests comparisons using the Games-Howell procedure to control for unequal group sizes while making multiple comparisons (Games & Howell, 1976) indicated that the Slovenian group was younger, on average, than all other groups; the German group was also older, on average, than the Italian and Hungarian groups. There were also significant gender differences, $\chi^2(5, N = 1071) = 35.37, p < .001$: The Slovenian group had the largest proportion of women (86.4%), and the International group had the lowest (54.7%). Situationism did not differ by age or gender ($ps > .2$).

Country groups differed in the frequency of alcohol use, $F(5, 1100) = 13.08, p < .001$, and unhealthy food consumption, $F(5, 1099) = 11.39, p < .001$ (effects remained significant when controlling for age and gender). In terms of alcohol, the Slovenian group had lower use than all other groups, and the Dutch group had greater use than the German group. For unhealthy eating, the Hungarian group had greater consumption compared to all other groups; the German

group also had greater consumption than the Dutch and Slovenian groups. With the exception of the surprisingly low alcohol use for Slovenia, these results are largely on par with nationally-reported averages for alcohol use and overweight/obesity (IASO, 2010; WHO, 2011, 2012). The Netherlands were the lowest for drinking-based situation-control strategies, and Hungary was lowest for eating-based situation-control strategies.

Properties of the Situationism Scale

Factor structure. In order to test the fit of the two-factor Situationism Scale, a series of confirmatory factor analyses (CFAs) were conducted using full information maximum likelihood (FIML) with Mplus 3.11 software (Muthén & Muthén, 2004). Specifically, CFAs were conducted for the overall sample, and then for each language-version group (with the exception of the international group, which was not included due to inadequate sample size). Results indicated that the two-factor solution had adequate fit (Brown, 2006; see Table 2 for fit indices) and supported configural invariance. However, when comparing configural versus the more conservative scalar invariance models, results indicated a decrement in model fit ($\Delta\chi^2 = 230.28$, $\Delta df = 32$, $p < .001$), suggesting little evidence of scalar invariance across groups.

Reliability. The internal consistency (Cronbach's alpha) of the Situationism Scale for the overall sample was $\alpha = .70$; within groups, it ranged from $\alpha = .65$ (Netherlands) to $\alpha = .75$ (Italy and international group). For the subscale *attention* (consisting of 5 items), Cronbach's alpha was $\alpha = .54$ for the overall sample; within groups, coefficients ranged from $\alpha = .52$ (Slovenia and Italy) to $\alpha = .63$ (international group). For the subscale *susceptibility* (consisting of 8 items), Cronbach's alpha was $\alpha = .68$ for the overall sample; within groups, coefficients ranged from $\alpha = .62$ (Netherlands) to $\alpha = .81$ (international group). Even though internal consistencies, especially for the subscale *attention*, were rather low in some countries, overall the scale demonstrated an

acceptable reliability (Table 3 presents scale reliabilities, item means, and item-total correlations for each group and the overall sample).

Discriminant validity. Intercorrelations between the scales used are shown in Table 4. As expected, the Situationism Scale correlated negatively with the Brief Self-Control Scale ($r = -.36$, $p < .001$), although it was not related to internal LOC ($p = .37$). In addition, it had a positive correlation with powerful others' LOC ($r = .18$, $p < .001$) and chance LOC ($r = .17$, $p < .001$). This pattern of correlations was highly similar across countries. Thus, the Situationism Scale seems to be related to self-control and external LOC, but the correlations are not strong enough to suggest that they reflect the same constructs.

Table 2. Fit indices for Comparative Factor Analyses solving for the two-factor Situationism Scale. Results are provided for country group and the overall sample.

Country Group	χ^2	<i>df</i>	<i>TLI</i>	<i>CFI</i>	<i>RMSEA</i>
Germany	24.380	9	.951	.970	.058
Hungary	39.393	9	.725	.835	.148
Italy	16.017	9	.889	.933	.088
Netherlands	16.807	9	.763	.858	.118
Slovenia	24.234	9	.894	.936	.085
Overall	19.399	9	.983	.990	.032

Note: The International group was not tested on its own due to inadequate sample size. In order to reduce correlated error, the 13 situationism items were divided into parcels; three randomly-generated parcels were created with the eight susceptibility subscale scale items, and used as indicators of the latent construct, *Susceptibility to the Environment*; and three randomly-generated parcels were created with the five attention subscale items, and used as indicators of the latent construct *Attention to the Situation*. Due to low variance for one of these parcels, its residual variance was fixed to 0.5.

TLI=Tucker-Lewis Index; CFI=comparative fit index; RMSEA=root-mean-square error of approximation.

Table 3. Scale Internal Consistencies, Item Means, Corrected Item-Total Correlations.

	Total sample (<i>N</i> =1097)		Germany (<i>n</i> =500)		Hungary (<i>n</i> =145)		Italy (<i>n</i> =101)		The Netherlands (<i>n</i> =62)		International (<i>n</i> =53)		Slovenia (<i>n</i> =236)	
Reliability (α)														
Full Situationism Scale	.70		.72		.72		.75		.65		.75		.66	
Attention Subscale	.54		.54		.54		.52		.62		.63		.52	
Susceptibility Subscale	.68		.71		.69		.73		.62		.81		.63	
Item	<i>M</i>	<i>r</i>	<i>M</i>	<i>r</i>	<i>M</i>	<i>r</i>	<i>M</i>	<i>r</i>	<i>M</i>	<i>r</i>	<i>M</i>	<i>r</i>	<i>M</i>	<i>r</i>
1	5.50	.22	5.66	.26	5.73	.04	5.33	.21	5.15	.34	5.49	.11	5.16	.23
2	3.91	.26	3.55	.35	4.57	.21	3.16	.25	3.92	.21	3.98	.28	4.53	.21
3	5.45	.06	5.37	.06	5.42	-.01	5.48	.09	5.55	.00	5.42	.18	5.62	.11
4	3.82	.43	3.68	.42	3.82	.43	4.02	.43	3.61	.48	3.91	.60	4.07	.46
5(r)	5.39	.19	5.45	.11	5.36	.46	5.25	.26	4.68	.16	5.17	.03	5.59	.13
6(r)	5.74	.40	5.84	.38	5.75	.49	5.37	.42	5.69	.53	5.34	.40	5.80	.34
7	4.26	.38	4.16	.42	4.78	.30	4.39	.42	3.97	.24	4.62	.52	4.10	.34
8	3.83	.34	3.93	.34	3.46	.43	4.12	.41	3.76	.21	3.91	.44	3.75	.32
9	4.79	.56	4.76	.56	5.36	.60	4.03	.68	4.65	.47	4.68	.67	4.89	.46
10	5.06	.39	4.97	.46	5.42	.31	4.08	.50	5.03	.28	5.19	.25	5.41	.36
11(r)	4.53	.28	4.80	.34	4.03	.33	4.71	.26	4.55	.18	4.51	.53	4.20	.19
12	4.68	.42	4.84	.47	4.63	.37	5.03	.35	4.21	.42	4.30	.33	4.44	.50
13	3.47	.23	3.75	.23	4.10	.35	3.71	.55	3.32	.18	3.83	.45	2.32	.04

Table 4. Correlations Between Scales and Internal Reliabilities (Cronbach's Alpha).

	Scale <i>M</i> (<i>SD</i>)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Situationism	4.65 (.68)	(.70)	.65***	.91***	-.36***	-.03	.18***	.17***	.12*	.10*	-.06	.07
(2) Subscale: Attention	5.43 (0.76)		(.54)	.28***	.05	.19***	.00	-.04	.09	.02	.08	.14**
(3) Subscale: Susceptibility	4.16 (0.87)			(.68)	-.49**	-.14***	.23***	.23	.11	.12***	-.12	.01
(4) Self-Control	3.16 (0.62)				(.69)	.27***	-.21***	-.26***	-.04	-.02	.05	.13**
(5) LOC: Internal	35.74 (4.51)					(.61)	-.10***	-.16	-.05	-.01	.05	.12**
(6) LOC: Powerful Others	22.16 (5.38)						(.65)	.58***	.16*	.21***	.02	.06
(7) LOC: Chance	23.03 (5.31)							(.67)	.12	.16***	.02	.03
(8) Situation-control (drinking) ^a	2.23 (0.83)								(.65)	.31***	.26**	.26**
(9) Situation-control (eating) ^a	3.32 (0.75)									(.65)	.29**	.61***
(10) Behavior-control (drinking) ^a	2.85 (0.91)										(.67)	.36***
(11) Behavior-control (eating) ^a	3.30 (0.70)											(.62)

Note. LOC=Locus of Control.

^a Analyses included only self-regulators.

* $p < .05$, ** $p < .01$, *** $p < .001$

Does Situationism Predict Situation-Control Strategies?

For alcohol use, self-regulators were defined as people who: (1) reported that they enjoyed drinking and consumed alcohol more than once a month; and (2) reported at least sometimes trying to limit, or restrict, their drinking behavior. For this subset of young adults ($n = 267$), the zero-order correlation between situationism and situation-control strategies for drinking was significant ($r = .12, p = .045$). Next, a hierarchical linear regression was conducted, in order to account for the influence of self-control. For this analysis, all independent and dependent variables were standardized (z -scored) and situationism and self-control were entered together in the first step. As expected, a significant effect was found for situationism ($\beta = .13, p = .04$). The effect of self-control was not significant ($p > .85$).

For eating behavior, self-regulators were defined as people who: (1) reported that they enjoyed unhealthy food and consumed it at least a few times a week; (2) were not trying to gain lot of weight; and (3) reported at least sometimes trying to limit, or control their eating. As with drinking behavior, the zero-order correlation between situationism and situation-control strategies for eating was significant ($r = .10, p = .015, n = 565$). Likewise, a hierarchical linear regression indicated that situationism was significantly associated with situation-control strategies for eating, ($\beta = .10, p = .025$) but self-control was not ($p > .73$). Thus, when looking at self-regulators (i.e., those people for which the use of control strategies is the most relevant), greater situationism was positively associated with greater use of situation-control strategies for alcohol use and unhealthy eating, above and beyond the effect of self-control. Situationism was not related to behavior-control strategies.

Comparing Situationism across Countries

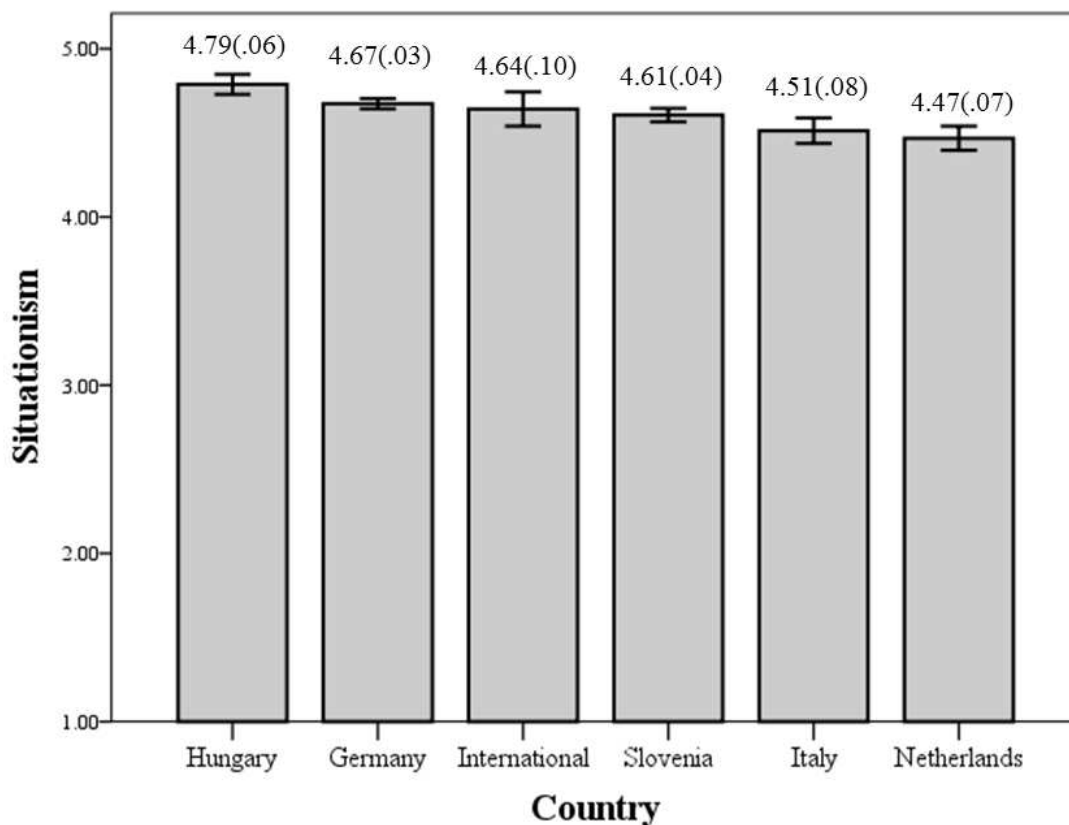
A one-way ANOVA indicated that situationism differed significantly among the country groups, $F(5, 1091) = 3.26, p = .006$, partial $\eta^2 = .015$. This effect remained significant when age and gender were included in the model ($p = .008$). Consistent with our hypothesis, post-hoc comparisons using the Games-Howell procedure indicated that the Hungarian group had significantly higher situationism scores than the Dutch group ($p = .01$; see Figure 2). Thus, situationism was higher in one of the more interdependent of the cultures in our study, compared to one of the least interdependent cultures in our study. Situationism was also marginally higher in the Hungarian group, compared to the Italian group ($p = .051$). There were no other significant differences between country samples.

More differences were detected when comparing country samples on the subscales *attention* [$F(5, 1098) = 6.56, p < .001$] and *susceptibility* [$F(5, 1092) = 2.44, p = .03$]. As with the preceding findings, these differences remained when models accounted for age and gender. For the attention subscale, the Slovenian and Hungarian samples were higher than both the Dutch and the Italian samples, and the German sample was also higher than the Italian sample ($ps < .05$). For the susceptibility subscale, contrary to the study hypotheses, the Slovenian sample was significantly lower than the Hungarian sample ($p = .03$).

In further investigation of our hypothesis, we compared how situationism varied by regional grouping (Eastern, Western, or Southern). We used the grouping according to the UN geoscheme (United Nations, 2013), which considers Germany and the Netherlands as Western European countries, Italy and Slovenia as Southern European countries, and Hungary as an Eastern European country. In addition to an overall difference based on region [$F(2, 1041) = 4.96, p = .007$], planned contrasts indicated that the Western and Southern European groups were

both lower on situationism than the Eastern European group ($ps < .003$). The Western and Southern European groups did not significantly differ from one another.

Figure 2. *Mean (S.E.) level of situationism, by country sample: Hungary (n=152), Germany (n=500), International (n=53), Slovenia (n=236), Italy (n=101), and the Netherlands (n=62). Total N=1104. Error bars indicate +/- 1 Standard Error.*



Discussion

This study concerned the measurement and cultural expression of situationism (beliefs about the importance of a behavior's context) by exploring six language versions of the Situationism Scale. Our investigation utilized samples from different European countries, including an international sample that allowed us to examine European responses to the English-

language version. Results indicated that the Slovenian group was lowest for alcohol use, and the Hungarian group was the highest for unhealthy eating. Consistent with our first hypothesis, study results indicated similar factor structures as when the Situationism Scale was tested with US samples (Roberts et al., 2014), and the new language versions of the scales generally demonstrated adequate reliability and discriminant validity. Consistent with our second hypothesis, we found that, for both alcohol use and unhealthy eating, greater situationism was positively associated with self-regulators' use of situation-control strategies. Moreover, self-control did not predict the use of those strategies. These findings provide promising evidence for the validity, reliability, and predictive utility of the translated scales, and support their use in cross-cultural work concerning self-regulation.

Finally, supporting our third hypothesis, there was evidence of regionally-based differences in levels of situationism. The Hungarian sample was significantly higher on the Situationism Scale than the Dutch sample, which is in line with previous findings that Hungary can be considered a more interdependent culture than the Netherlands (Kolman et al., 2003). Similar patterns were obtained for the two situationism subscales, with the Hungarian sample showing the highest levels and the Dutch and Italian samples showing lower levels. Furthermore, when comparing participants grouped based on regional area, the Eastern group was significantly higher on situationism than the Western group. Thus, it appears that individuals from cultures that are relatively more interdependent and Eastern European are slightly higher on situationism than individuals from cultures that are Western European and relatively less interdependent.

Unanticipated Outcomes

Although the present findings were generally consistent with hypotheses, it is important to note some exceptions. In terms of the Situationism Scale's psychometric properties, one

unanticipated outcome was that item 3 (“I tend to be conscious of my surroundings”) demonstrated low item-total correlation on the full scale. Although its subscale loading was higher, future studies may consider dropping this item from the Situationism Scale. It should also be noted that internal consistency was rather low in some of the samples (i.e., the Netherlands and Slovenia) and for the subscale *Attention to the Situation*. Results for these countries should be interpreted with caution, and further investigation and adjustments to the subscales may be required.

In terms of regional differences, one unexpected finding was the relatively high situationism in Germany—a country that we had classified as Western European, and therefore low-interdependence. Likewise, why the Slovenian sample was relatively high on the attention subscale but relatively low on the susceptibility subscale is unclear; the results may be a function of the relatively low internal consistency of the attention subscale. As we found little evidence of scalar invariance across samples, the mean-level group differences should be interpreted with caution. Nevertheless, study findings were, overall, consistent with cross-cultural theories about society-level differences in independence versus interdependence across Europe (Varnum et al., 2008).

Strengths and Limitations

This was the first study to examine differences in situationism among different groups of Europeans. A strength of the present study is the relatively large sample size ($N > 1000$). However, it is important to note that country samples varied greatly in size. Although we used procedures that corrected for unequal sample size, interpretation of the results may be limited by the imbalance. Country sample sizes were also too small to examine whether country moderated the effects found for situation-control strategies—although this is an interesting question that

merits future research. It should also be noted that even though our analyses covaried for gender, the generalizability of our findings may be limited by imbalance between men and women among the participants. In addition our conclusions are tentative due to the cross-sectional, self-report nature of this study. It is possible that response biases such as social desirability, demand characteristics, or lack of insight may have influenced the self-reports, especially to the questions related to potentially problematic eating/drinking behaviors. The congruence of our findings on mean-level differences between countries and official statistics suggests that the responses were not grossly distorted. Yet supplementing self-report measures with implicit or behavioral measures (e.g., the tasks described by Grossman & Varnum, 2011) would be a very useful approach in future studies on situationism—doing so would provide stronger support for validity and may yield larger effect sizes. Future work should also assess independence/interdependence, as self-construal was not directly tested in this study.

It is also important to note that although our participants represented many different countries of origin, they were all living in Europe; whether the results replicate with individuals of other countries and ethnicities is a question that awaits empirical scrutiny. In particular, it would be informative for future studies to examine the Situationism Scale and behavioral outcomes in East Asian countries, where situationism was originally studied, and where it is purportedly much higher (Choi, Nisbett, & Norenzayan, 1999). Effect sizes were small in this study and although the correlations between situationism and situation-control strategies were positive, they were also low. It is possible that differences may be more pronounced when comparing European versus East Asian samples.

Conclusions

The ability to effectively regulate one's behavior and achieve one's goals can be influenced by a variety of interpersonal and situational factors. Awareness of the situational influences, and the foresight to avoid or otherwise control these influences, may be one means by which people achieve greater self-regulation success. Although preliminary, the present findings support many of the ideas and assumptions introduced by Roberts et al. (2014). To begin, present findings support a construct for situationism—the perceived relation between one's environment and subsequent outcomes; in contrast, related constructs (e.g., LOC) focus on perceived relations between one's *behavior* and subsequent outcomes (see Roberts et al, 2014, for further discussion). Findings also provide evidence, consistent with that of Roberts et al., that situationism can influence judgments, decisions, and behaviors regarding the self; in contrast, most related cross-cultural work has focused on judgments/decisions about others (e.g., holism). Further, as the first test of the Situationism Scale beyond American samples, this paper provides the first evidence that the Scale assesses a universal construct. Moreover, these findings suggest that differences in situationism exist both between and within cultures, and that the positive relation between situationism and situation-control strategies may be similar across cultures. Overall, these results support a conceptualization of self-regulation theory beyond a self-control/behavior-control focus (see Figure 1), suggesting that when making judgments and decisions about one's ability to self-regulate, cultural background and individual differences in situationism come into play.

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References

- Baumeister, R.F. & Heatherton, T. F. (1996). Self-regulation failure: Past, Present, and Future. *Psychological Inquiry*, 7(1), 1-15.
- Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*, 25(24), 3186-3191. doi:10.1097/00007632-200012150-00014
- Brown, T. A. (2006). *Confirmatory Factor Analysis for Applied Research: Methodology in the Social Sciences*. The Guilford Press; New York, NY: 2006.
- Choi, I., Nisbett, R.E., & Norenzayan, A. (1999). Causal attribution across cultures: Variation and universality. *Psychological Bulletin*, 125, 47-63. doi:10.1037/0033-2909.125.1.47
- De Wilde, A., & Van Kenhove, P. (2005). Onethisch consumentengedrag: Onderzoek naar enkele determinanten. Ghent University, Ghent, Belgium.
- Games, P. A., & Howell, J. F. (1976). Pairwise multiple comparison procedures with unequal n's and/or variances: A Monte Carlo study. *Journal of Educational and Behavioral Statistics*, 1, 113-125. doi:10.2307/1164979
- Glassman, T., Werch, C., & Jobli, E. (2007). Alcohol self-control behaviors of adolescents. *Addictive Behaviors*, 32(3), 590-597. doi:10.1016/j.addbeh.2006.06.003
- Grossmann, I., & Varnum, M. E. (2011). Social Class, Culture, and Cognition. *Social Psychological and Personality Science*, 2, 81-89. doi:10.1177/1948550610377119
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford Press.

- ISAO (2010). Adult overweight and obesity in the European Union (EU27). Downloaded from www.iaso.org/site_media/uploads/v2PDFforwebsiteEU27.pdf
- Kitayama, S., Park, H., Sevincer, A. T., Karasawa, M., & Uskul, A. K. (2009). A cultural task analysis of implicit independence: Comparing North America, Western Europe, and East Asia. *Journal of Personality and Social Psychology*, 97, 236-255. doi:10.1037/a0015999
- Kline, M. (1993). *Osebnostne in situacijske determinante podjetniškega vedenja* (Doctoral dissertation). Ljubljana: Filozofska fakulteta
- Kolman, L., Noorderhaven, N. G., Hofstede, G., & Dienes, E. (2003). Cross-cultural differences in Central Europe. *Journal of Managerial Psychology*, 18, 76-88. doi:10.1108/02683940310459600
- Kokkoris, M. D., & Kühnen, U. (2013). Choice and dissonance in a European cultural context: The case of Western and Eastern Europeans. *International Journal of Psychology*, 48, 1260-1266. doi:10.1080/00207594.2013.766746
- Krampen, G. (1981). *IPC-Fragebogen zu Kontrollüberzeugungen*. Göttingen: Hogrefe.
- Levenson, H. (1981). Differentiating among internality, powerful others, and chance. In H.M. Lefcourt (Ed.), *Research with the locus of control construct* (Vol. 1, pp. 15-63). New York: Academic Press.
- Levenson, H. (1981). Differentiating among internality, powerful others, and chance. In H. M. Lefcourt (Ed.), *Research with the locus of control construct* (Vol. 1, pp. 15–63). New York, NY: Academic Press.
- Muraven, M., Collins, R. L., & Nienhaus, K. (2002). Self-control and alcohol restraint: An initial application of the self-control strength model. *Psychology of Addictive Behaviors*, 16, 113-120. doi:10.1037//0893-164X.16.2.113

- Muthén, L. K., Muthén, B. O. (1998–2004). *Mplus (Version 3.0)*. Los Angeles: Muthén & Muthén.
- Norenzayan, A., Choi, I., & Nisbett, R. E. (2002). Cultural similarities and differences in social inferences: Evidence from behavioral predictions and lay theories of behavior. *Personality and Social Psychology Bulletin*, 28(1), 109-120.
doi:10.1177/0146167202281010
- Owe, E., Vignoles, V. L., Becker, M., Brown, R., Smith, P. B., Lee, S. W., ... & Carrasco, D. (2013). Contextualism as an Important Facet of Individualism-Collectivism Personhood Beliefs Across 37 National Groups. *Journal of Cross-Cultural Psychology*, 44, 24-45.
doi:10.1177/0022022111430255
- Raynor, H. A., Jeffery, R. W., Ruggiero, A. M., Clark, J. M., & Delahanty, L. M. (2008). Weight loss strategies associated with BMI in overweight adults with type 2 diabetes at entry into the Look AHEAD (Action for Health in Diabetes) Trial. *Diabetes Care*, 31, 1299-1304.
doi:10.2337/dc07-2295
- Roberts, M. E., Gibbons, F. X., Gerrard, M., & Klein, W. M. P. (2015). Individual differences in situation awareness: Validation of the situationism scale. *The Journal of Social Psychology*, 155, 143–162. doi:10.1080/00224545.2014.977762
- Ross, L., & Nisbett, R. E. (1991). *The person and the situation: Perspectives of social psychology*. New York: McGraw-Hill.
- Spector, P. E., Cooper, C. L., Sanchez, J. I., O'Driscoll, M., Sparks, K., Bernin, P., ... & Yu, S. (2001). Do national levels of individualism and internal locus of control relate to well-being: An ecological level international study. *Journal of Organizational Behavior*, 22(8), 815-832. doi:10.1002/job.118

- Sproesser, G. Strohbach, S. Schupp. H., & Renner, B. (2011). Candy or apple? How self-control resources and motives impact dietary healthiness in women. *Appetite*, 56, 784-787.
doi:10.1016/j.appet.2011.01.028
- Sugarman, D. E., & Carey, K. B. (2007). The relationship between drinking control strategies and college student alcohol use. *Psychology of Addictive Behaviors*, 21(3), 338-345.
doi:10.1037/0893-164X.21.3.338
- Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, 72 (2), 271-322. doi:10.1111/j.0022-3506.2004.00263.x
- United Nations (2013, October). *Composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings*. Retrieved from <http://unstats.un.org/unsd/methods/m49/m49regin.htm>
- Varnum, M. E., Grossmann, I., Katunar, D., Nisbett, R. E., & Kitayama, S. (2008). Holism in a European cultural context: Differences in cognitive style between Central and East Europeans and Westerners. *Journal of Cognition and Culture*, 8, 321-333.
doi:10.1163/156853708X358209
- Vohs, K. D., & Heatherton, T. F. (2000). Self-regulatory failure: A resource-depletion approach. *Psychological Science*, 11(3), 249-254. doi:10.1111/1467-9280.00250
- WHO (2011). Global status report on alcohol and health. *Geneva: World Health Organization*.
- WHO (2012). *Alcohol in the European Union: Consumption harm and policy approaches*. Stylus Pub Llc.